CTSNet Program Profile Questionnaire

PROGRAM DETAILS

1. Names of the
   a. Program director: George L. Hicks, Jr, MD
   b. Chief(s) of cardiac division: George L. Hicks, Jr, MD
   c. Chief (s) of thoracic division: Thomas Watson, MD

2. Program Contact information: Suzanne Hutchings
   Suzanne_hutchings@urmc.rochester.edu

3. Link to your program's website:
   http://www.urmc.rochester.edu/surgery/education/residencies-fellowships/ctlinks.cfm

4. We would be happy to post relevant pictures regarding your program (3 pictures maximum).

5. Indicate the # of residents accepted per year to your program: 2

6. Indicate the length of the program: 2 years

7. Does your program have separate cardiac and thoracic tracks? No

8. Indicate the approximate deadline for application and interview dates:
   a. Deadline: Jan 15 2011
   b. Interview dates: Feb 12 2011

CASE VOLUME

1. Please indicate the average number of cases per year performed in your program for the following ABTS categories:

	Total Institution Cases	Total Cases per Resident
Total number of cardiac cases:	1000 (Adult/peds)	150
Total number of thoracic cases:	750	58
Congenital heart disease:	250	10
Acquired valvular heart:	210	65
Valve repairs:	90-100	14
Myocardial Revascularization:	370	60
Aorta:	50	2
Pneumonectomy, lobectomy, segmentectomy:	120	70
Esophagus resection:	45	8
Benign Esophageal Disease:	10	1
Heart transplants:	10	0
Lung transplants:	0	0
Ventricular assist device:	90	1
Minimally invasive cardiac:	15	3

CURRICULUM

1. Details of curriculum:
    a. Indicate the # of months on each rotation for each year (for each cardiac and thoracic track if applicable), and which hospital(s). The traditional thoracic surgery program is equally divided between cardiac and thoracic rotations during the first year with concentration on the specific area of interest in the second year. All training is at the University of Rochester Medical Center Strong Memorial Hospital. With a full resident complement we will be having residents on two adult cardiac rotations, one pediatric cardiac rotation and the thoracic/foregut surgery rotation

    b. Please describe any opportunities for electives

    c. Please describe any wet labs and simulation technology used in training and how frequently these are used:
    We have an active program in simulation for both cardiac and thoracic surgery. We will be part of a Beta-test group using the high-fidelity Ramphal pig heart simulator to assess teaching techniques and skill mastery in CT residents. Curriculum is included in "OTHER" section at the end of this document. We put on several skills camps locally each year for General Surgery and CT residents as well as medical students. The R6s on Cardiac Surgery begin the year with basic skill preparations including participation at a national CT Boot Camp which provides simulation training in cannulation, emergency scenarios, small vessel anastomoses, bronchoscopy and hilar dissection skills. It is felt that this is a very important step for residents beginning their cardiothoracic residency.

    d. Please briefly describe the number and type of weekly conferences residents are expected to attend:
    Weekly conferences are held in Thoracic/foregut surgery which includes M&M, QA, Journal Club and specific topic presentations. Cardiac Surgery conferences are presented by the faculty and follow the TSDA 88 week curriculum. Weekly Cardiac M&M conferences also take place The residents also have a monthly question (SESATs or other review questions) and answer meeting where approaches to different clinical problems are discussed.

    e. Please indicate what provisions are made for attending national research meetings (i.e., # per year for which funding is provided, and if that is dependent on presenting an abstract):
    Funding is provided for each fellow to attend one national conference per year as well as review courses in preparation for the ABTS certifying examination. Papers accepted for presentation at national meetings are presented by the residents and are an additional opportunity to attend meetings.

    f. Please describe opportunities for research (clinical, basic science):
    At present no research year is available during the traditional program although residents from URMC may do research in CT during their year-out as a GS resident. It is possible that residents in our recently approved I-6 program will have opportunity to be involved in research projects or acquisition of further degrees.

    g. Please describe the call structure (i.e., frequency, in-house vs. home call):
    Call schedule is home beeper call approximately every third night and one to 2 weekends per month.

    h. Please indicate whether funds are provided for loupes? Textbooks? Phones?
    One set of loupes is provided during the two year program as well as one textbook of choice.

2. Subjective:
    a. Please describe your program's biggest strengths
    Large clinical volume per resident with excellent volumes of valve, aortic pathology, pediatric cardiac, pulmonary and esophageal cases with a small number of attendings who are committed to teaching in a single hospital setting at URMC. The program is flexible so that residents with specific interests (either cardiac or thoracic) can have extra time in that area.

    b. Please provide 1-2 adjectives that describe your program
    Educational and nurturing

    c. Please indicate what is unique about your program relative to other programs
    Cannot speak for other programs but we take our educational mission seriously and use

strong clinical exposure and a complete yearly curriculum to help residents grow technically, cognitively, and emotionally as a CT surgeon.

GRADUATES

1. Indicate the percentage of graduates that do further training: Less than 15%

2. Indicate the percentage of graduates that pursue academics vs. private practice: 20/80

3. Please provide an account of job placement for your graduates over the last 3 years:
   Over the past three years five residents have completed training. They are all currently in private practice, 2 specializing in cardiac surgery and 3 in both cardiac and thoracic surgery.

Please describe "super" fellowship opportunities (e.g. transplant, endovascular, minimally invasive, congenital) available at your institution: **FUTURE CHANGES**

1. Please indicate whether your program is planning on developing a Joint Thoracic/General Surgery (4+3) or Integrated Program (if your program already has one, please skip this section and complete the last portion of the questionnaire entitled "Additional questions for Joint Thoracic/General Surgery (4+3) and Integrated (i6) programs")?
   We have both 4/3 and I-6 programs approved and ready for enrollment (see below).

JOINT THORACIC/GENERAL SURGERY (4+3) and INTEGRATED PROGRAMS (I6)
Please only fill this out if your program already has an approved 4+3 or integrated program

1. Please indicate the # of residents accepted per year One for each program although as the I-6 increases its enrollment we will be scaling back the number of traditional or 4/3 candidates

2. Please indicate the year of your first entering class: 2011

3. Details of curriculum:
   a. Please indicate the # of months on each rotation for each year, and which hospital. Please feel free to send as an attachment your rotation block diagram:

PGY1	PGY2	PGY3	PGY 4	PGY 5
Trauma-Emergency Surgery	Trauma-Emergency Surgery	Burn-Trauma ICU	Trauma-Emergency Surgery	Trauma-Emergency Surgery
Burn Surgery	Trauma-Emergency Surgery	Burn-Trauma ICU	Trauma-Emergency Surgery	Trauma-Emergency Surgery
Cardiac Surgery	Cardiac Surgery	Cardiac Surgery	Cardiac Surgery	General Surgery RGH
Anesthesia	Endoscopy	General Surgery RGH	Cardiac Surgery	General Surgery RGH
Thoracic-Foregut Surgery	Thoracic-Foregut Surgery	Surgical Oncology	Thoracic-Foregut Surgery	Surgical Oncology
Surgical Oncology	Breast Surgery	Surgical Oncology	Thoracic-Foregut Surgery	Surgical Oncology

SMH = Strong Memorial Hospital
RGH = Rochester General Hospital
HH = Highland Hospital

PGY 6 CT Tract	PGY 7 CT Tract	PGY 6 Thoracic Tract	PGY 7 Thoracic Tract
Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery	Adult Cardiac Surgery
Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery	Adult Cardiac Surgery
Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery	Adult Cardiac Surgery
Thoracic/Foregut Surgery	Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery
Thoracic/Foregut Surgery	Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery
Thoracic/Foregut Surgery	Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery
Congenital Heart Surgery	Thoracic/Foregut Surgery	Thoracic/Foregut Surgery	Congenital Heart Surgery
Congenital Heart Surgery	Thoracic/Foregut Surgery	Thoracic/Foregut Surgery	Congenital Heart Surgery
Congenital Heart Surgery	Thoracic/Foregut Surgery	Thoracic/Foregut Surgery	Congenital Heart Surgery
Adult Cardiac Surgery	Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery
Adult Cardiac Surgery	Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery
Adult Cardiac Surgery	Adult Cardiac Surgery	Adult Cardiac Surgery	Thoracic/Foregut Surgery

b. Please indicate whether research time is included in the curriculum. Is this optional or required? Optional. Please refer to above answer "1F" regarding the I-6.
c. Please briefly describe what exposure students will receive to fields adjunct to CT surgery (i.e., echocardiography/cardiac imaging, cardiology, ICU, endovascular technology): See rotations listed above

4. Please provide additional relevant comments:
Joint Thoracic/General Surgery Program was approved in 2010 with a position available to a resident in the General Surgery Program at the University of Rochester Medical Center. During the first four years the General Surgery Program Director is directly responsible for the resident regarding evaluation and supervision. During the PGY 5 year the General Surgery and CT Surgery program directors share responsibility. In the PGY 6 and 7 year the CT Surgery program director has full responsibility.

The Integrated Program was approved in January 2011 with an anticipated start date of July 1, 2011. The Thoracic Surgery Program director will have full responsibility for all resident education in this program.

OTHER

1. Please elaborate on any other unique components of your program not captured in this questionnaire.
Single institution, excellent volume, comprehensive educational curriculum

Through the Grateful Donors Program at the University of Rochester Medical Center we have recently purchased a computerized high-fidelity Ramphal pig heart simulator and developed a "Simulation Course in Cardiac Surgery"
The course is to enhance skills for CT residents, general surgery residents and NPs involved in CT critical care. These skill sets are essential for the everyday performance of cardiac surgery and the care of post op patients and simulation represents the most important change in traditional curricula which allows residents and NPS to develop and master new skills outside the pressured environment of the OR or ICU. CT surgery is developing a national approach to utilize simulation in an organized fashion for resident education.

20 Week revolving curriculum
Week 1 &2 Orientation to cardilopulmonary bypass with mock set-ups, emergency scenarios and troubleshooting problem solving
Week 3 &4 Developing skills of cannulation using perfused non-beating pig hearts
Week 5&6 Coronary artery anastomosis task station using small synthetic vessels at first and thereafter pig heart model anastomoses. All anastomoses will be videoed and assessed using an objective numerical system
Week 7&8 Beating heart surgery to learn off pump CABG utilizing a proven beating pig heart computerized model and video assessment of techniques
Week 9&10 Aortic valve surgery using pig heat models for standard and root replacements with video recording
Week 11&12 Mitral valve surgery using mitral valve model for understanding of anatomy, repair techniques, incision and replacement techniques. Skills in interpreting ECHO would be part of module
Week 13&14 Robotic skills using mock thorax and basic tasks to familiarize residents with robotic surgery
Week 15&16 Scenario simulation (team) mastering emergency situations including tensin pneumothorax, cardiogenic shock, hemorrhage shock, arrhythmias and complications of ventricular assist devices
Week 17&18 OR simulation for emergency scenarios utilizing the computerized beating pig heart model. Resident will complete with their team an independent surgical procedure (CABG, mitral or aortic valve replacement while being videoed for assessment
Week 19&20 Endovascular skills using the cardiac-vascular simulator to improve and assess wire-based techniques for coronary stenting, carotid stenting and endograft placement
Week 21&22 Review and remediation to identify areas of strengths and weaknesses to best customize the next 20 week curriculum to the participants' best advantage